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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/116,589 07/16/98 NISHIKAWA

S Q51098

MMC2/0720  
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WASHINGTON DC 20037-3202

EXAMINER

CHANG, A

ART UNIT

PAPER NUMBER

2872

DATE MAILED:

07/20/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

**Office Action Summary**

Application No.

09/116,589

Applicant(s)

NISHIKAWA ET AL.

Examiner

Audrey Y. Chang

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 May 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 28 and 29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 28 and 29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

**Attachment(s)**

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

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## DETAILED ACTION

### *Remark*

1. This Office Action is in response to applicant's amendment filed on May 15, 2001 that has been entered as paper number 20.
2. By this amendment, the applicant has amended claims 28 and 29 and has canceled claim 63.
3. Claims 28 and 29 remain pending in this application.
4. The rejection to claim 29 under 35 USC 112, second paragraph, is withdrawn in response to applicant's amendment.

### *Claim Rejections - 35 USC § 112*

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 29 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 29 has been amended to include the feature "a side ... that is not directly across from said photosensitive material" that appears to be confusing and indefinite. It is not clear if this side is referred to the side of the transmission hologram that is not directly or immediately adjacent to the photosensitive material. Clarification is required.

### *Claim Rejections - 35 USC § 103*

7. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over the patent issued to Kawazoe et al in view of the patent issued to patent issued to Minami (PN. 5,372,900).

The reasons for rejection base on the teachings of Kawazoe et al are set forth in the previous Office Action dated November 15, 2000.

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Claim 28 has been amended to include the additional feature having the reflection type relief hologram comprises a computer generated hologram. The Kawazoe et al reference does not teach this feature explicitly. However using a computer to generate hologram is extremely well known in the art and to use a computer generated hologram as a master hologram for recording a second hologram is also very well known in the art. Such is demonstrated by the teachings of Minami wherein a reflection type computer generated hologram (11, Figure 3) is used as a master hologram for recording a reflection type hologram on the photoresist plate (41, Figure 3). It would then have been obvious modification to one having ordinary skill in the art to apply the teachings of Minami to modify the master reflection type hologram of Kawazoe et al to make it a computer generated hologram for the benefit of providing an alternative way of making the master hologram.

8. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over the patent issued to Molteni et al in view of the patent issued to Moss et al (PN. 5,016,953).

The reasons for rejection base on the teachings of Molteni et al are set forth in the previous Office Action dated November 15, 2000. The Molteni et al reference does not teach this feature explicitly. However using a computer to generate hologram is extremely well known in the art and to use a computer generated hologram as a master hologram for recording a second hologram is also very well known in the art. Such is demonstrated by the teachings of Moss et al wherein a transmission type computer generated hologram (29, Figure 2) is used as a master hologram for recording a reflection type hologram on the holographic plate (33, Figure 2). It would then have been obvious modification to one having ordinary skill in the art to apply the teachings of Moss et al to modify the master transmission type hologram of Molteni et al to make it a computer generated hologram for the benefit of providing an alternative way of making the master hologram.

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*Response to Arguments*

9. Applicant's arguments filed on May 15, 2001 have been fully considered but they are not persuasive. The newly added features to the amended claims have been fully considered and they are rejected for the reasons stated above.

10. Applicant's arguments are mainly drawn to the newly added features and they have been fully addressed in the paragraphs above.

*Conclusion*

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Audrey Y. Chang whose telephone number is 703-305-6208. The examiner can normally be reached on Monday-Friday (8:00-4:30), alternative Mondays off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cassandra Spyrou can be reached on 703-308-1637. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

A. Chang, Ph.D.  
July 17, 2001

A handwritten signature in black ink, appearing to read 'Audrey Chang', with a large, stylized loop at the end.

**Audrey Chang  
Primary Examiner  
Technology Center 2800**